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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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26171	7590	07/05/2005	EXAMINER	
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			JARRETT, RYAN A	
			ART UNIT	PAPER NUMBER
			2125	

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/680,411

Applicant(s)

SANFORD ET AL.

Examiner

Ryan A. Jarrett

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 30-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/9/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-29 are presented for examination. Claims 30-37 are withdrawn from consideration.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 12/9/04 has been received. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner and an initialed copy is being attached to this Office Action.

Election/Restrictions

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-29, drawn to a system and method of optimizing industrial production, classified in class 700, subclass 108.
 - II. Claims 30-37, drawn to a method of improving a manufacturing client's business performance, classified in class 700, subclass 36.
4. The inventions are distinct, each from the other because of the following reasons:

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Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as in a system that analyzes potential economic gain that may be realized for each targeted area of improvement in a manufacturing environment. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper:

During a telephone conversation with Greg Walters on 6/06/05 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-29. Affirmation of this election must be made by applicant in replying to this Office action. Claims 30-37 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: reference number 240 on page 8 line 32. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 11-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "the parameters" in line 3. There is insufficient antecedent basis for this limitation in the claim.

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Claims 12-17 depend from claim 11 and incorporate the same deficiencies.

Claim 18 recites the limitation "the parameters" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the operation performed" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the process" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Claims 18-29 depend from claim 11 and incorporate the same deficiencies.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language:

9. Claims 1, 2, and 4-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Eryurek et al. U.S. Patent No. 6,795,798. Eryurek et al. discloses:

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1. An apparatus for monitoring performance of an industrial process comprising: a service portal (e.g., Fig. 1 #30, Fig. 2 #50) for collecting, transmitting and analyzing parameter data from process field devices comprising:

a network connection (e.g., Fig. 1 #32) that connects to a process control system of the industrial process (e.g., col. 6 line 60 – col. 8 line 14, Fig. 1 #12A, 12B, 18, 14A, 14B, 22, 26);

a remote collector (e.g., col. 8 line 15 – col. 9 line 44, col. 11 lines 16-40, Fig. 1 #30, Fig. 2 #50) that collects parameter data from process field devices (e.g., col. 6 line 60 – col. 8 line 14, Fig. 1 #15, 16, 20, 25);

a processor that identifies, sorts, and stores the collected parameter data (e.g., col. 8 line 15 – col. 9 line 44, col. 11 lines 16-40, Fig. 1 #30, Fig. 2 #50);

a communications module for transmitting the stored parameter data to a remote monitoring station for analysis (e.g., Fig. 1 #40, col. 8 lines 40-44, Fig. 32 #914, Fig. 33).

2. The apparatus of claim 1 wherein the network connection is a wireless network collection (e.g., col. 12 lines 6-19).

4. The apparatus of claim 1 wherein the network connection is a radio frequency network (e.g., col. 12 lines 6-19).

5. The apparatus of claim 1 wherein the remote collector (e.g., Fig. 1 #30) collects the parameter data from a workstation (e.g., Fig. 1 #12A, 18, 14A, 22, 26).

6. The apparatus of claim 1 wherein the processor performs simple analysis of the parameter data (e.g., col. 8 line 15 – col. 9 line 44, col. 11 lines 16-40).

7. The apparatus of claim 1 wherein the processor performs trends analysis of the parameter data (e.g., col. 31 lines 8-19).

8. The apparatus of claim 1 wherein the processor performs statistical analysis of the data (e.g., col. 22 lines 45-62).

9. The apparatus of claim 1 wherein the processor models the parameter data (e.g., Fig. 2 #56).

10. The apparatus of claim 1 wherein the processor develops a simulation of the process (e.g., col. 5 lines 30-34, col. 17 lines 8-19, Fig. 3, Fig. 4).

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11. A method of optimizing industrial production comprising:

providing an onsite production process parameter monitoring device (e.g., col. 6 line 60 – col. 8 line 14, Fig. 1 #12A, 12B, 12C, 18, 14A, 14B, 22, 26, 30) to a client for monitoring the parameters of a set of field devices (e.g., Fig. 1 #15, 16, 20, 15) associated with a client production process wherein the monitoring device can transmit process data offsite for analysis (e.g., Fig. 1 #40, col. 8 lines 40-44, Fig. 32 #914, Fig. 33);

associating the monitoring device with a data output of each field device within the set of field devices, wherein each field device gathers process parameter data associated with an operation performed and transmits the data to the monitoring device associated with the process (e.g., col. 6 line 60 – col. 9 line 44, Fig. 1 #12A, 12B, 12C, 18, 14A, 14B, 22, 26);

monitoring each field device through a plurality of performances of the process, while gathering parameter data from each performance (e.g., col. 6 line 60 – col. 9 line 44); and

transmitting the gathered data offsite for analysis (e.g., Fig. 1 #40, col. 8 lines 40-44, Fig. 32 #914, Fig. 33 #958).

12. The method of claim 11 further comprising maintaining an on site central data collection device (e.g., col. 8 line 15 – col. 9 line 44, col. 11 lines 16-40, Fig. 1 #30, Fig. 2 #50) wherein all of the data associated with the process is collected for on site use (e.g., Fig. 1 #30) and offsite use (e.g., Fig. 1 #40).

13. The method of claim 11 wherein associating the monitoring devices with a data output of every individual field device includes: identifying a potential data output stream from each field device; and establishing a data communications link between each field device and the associated monitoring device (e.g., col. 6 line 60 – col. 9 line 44, col. 11 lines 15-40).

14. The method of claim 13 wherein defining a potential data output stream includes: identifying relevant process parameters; and ensuring that each relevant process parameter is being monitored (e.g., col. 6 line 60 – col. 9 line 44, col. 11 lines 15-40).

15. The method of claim 13 wherein establishing a data communications link between each field device and the associated monitoring device includes linking the field devices to the associated monitoring device using any combination of wireless, infrared, RF, direct

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connect, POTS, Ethernet, LAN, WAN, internet, intranet, fiber optic, or optical communications (e.g., col. 60 line 60 – col. 7 line 57).

16. The method of claim 11 wherein gathering parameter data for each performance of a set device includes: splitting the data stream from each field device into individual process parameter data, creating a data historian for each parameter, for each field device and for each production process (e.g., col. 8 line 15 – col. 9 line 44, col. 11 lines 15-40), and storing the data in an on site central data collection device (e.g., Fig. 1 #12A, 12B, 12C, 18, 14A, 14B, 22, and 26) and in an offsite storage and analysis device (e.g., Fig. 1 #30).

17. The method of claim 11 wherein the monitoring devices transmit the data offsite using any combination of wireless, infrared, RF, direct connect, Ethernet, LAN, WAN, internet, intranet, fiber optic, or optical communications (e.g., col. 8 lines 29-31, Fig. 1 #32).

18. A method of optimizing industrial production comprising:

providing a plurality of onsite production process parameter monitoring devices (e.g., col. 6 line 60 – col. 8 line 14, Fig. 1 #12A, 12B, 12C, 18, 14A, 14B, 22, 26, 30) to a client for monitoring the parameters of a set of field devices (e.g., Fig. 1 #15, 16, 20, 15) associated with each client product wherein each monitoring device can transmit process data to an offsite analysis group (e.g., Fig. 1 #40, col. 8 lines 40-44, Fig. 32 #914, Fig. 33);

associating the monitoring devices with a data output of each field device in the set of field devices, wherein each field device gathers process parameter data associated with the operation performed and transmits the data to the monitoring device associated with the process (e.g., col. 6 line 60 – col. 9 line 44, Fig. 1 #12A, 12B, 12C, 18, 14A, 14B, 22, 26);

monitoring each field device through a plurality of performances of the process, while gathering parameter data from each performance (e.g., col. 6 line 60 – col. 9 line 44);

transmitting the gathered data offsite for analysis (e.g., Fig. 1 #40, col. 8 lines 40-44, Fig. 32 #914, Fig. 33 #958); and

analyzing the gathered data offsite using process experts, wherein the process experts develop optimal physical parameter ranges for each field device of each client production (e.g., col. 8 lines 40-44, col. 35 line 16 – col. 38 line 22, Fig. 1 #40, Fig. 32 #914, Fig. 33 #956).

19. The method of claim 18 further comprising an on site central data collection device (Fig. 1 #30) wherein all of the data transmitted offsite is collected for on site use.

20. The method of claim 18 further comprising transmitting the optimal physical parameters for each field device of each client production process to the client (e.g., col. 35 line 16 – col. 38 line 22, Fig. 32 #914, Fig. 33 #956).

21. The method of claim 20 further comprising making adjustments to a field device controller for each field device, wherein the adjustments are based on the analysis of the data performed by the experts (e.g., col. 10 lines 19-49, col. 35 line 16 – col. 38 line 22, Fig. 32 #914, Fig. 33 #956).

22. The method of claim 21 wherein the adjustments are made while the process is running (e.g., col. 20 line 44 – col. 22 line 18).

23. The method of claim 21 wherein the adjustments are made while the process is idle (e.g., col. 20 line 44 – col. 22 line 18).

24. The method of claim 21 wherein the adjustments result in optimal productivity for the process (e.g., col. 35 line 16 – col. 38 line 22, Fig. 32 #914, Fig. 33 #956).

25. The method of claim 18 wherein the field devices transmit data to the monitoring device using any combination of wireless, infrared, RF direct connect, Ethernet, LAN, WAN, internet, intranet, fiber optic, or optical communications (e.g., col. 60 line 60 – col. 7 line 57).

26. The method of claim 18 wherein the monitoring devices transmit the data offsite using any combination of wireless, infrared, RF, direct connect, Ethernet, LAN, WAN, internet, intranet, fiber optic, or optical communications (e.g., col. 8 lines 29-31, Fig. 1 #32).

27. The method of claim 18 wherein analyzing the data includes developing a statistical model for the data (e.g., col. 22 lines 45-62).

28. The method of claim 18 wherein analyzing the data includes developing simulation models of the process using the data (e.g., col. 5 lines 30-34, col. 17 lines 8-19, Fig. 3, Fig. 4).

29. The method of claim 18 wherein analyzing the data includes doing a trend analysis of the data (e.g., col. 31 lines 8-19).

10. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Eryurek et al. US 2005/0037249. Eryurek et al. discloses:

1. An apparatus for monitoring performance of an industrial process comprising: a service portal (e.g., Fig. 1 #30, Fig. 2) for collecting, transmitting and analyzing parameter data from process field devices comprising:

a network connection (e.g., Fig. 1 #32) that connects to a process control system of the industrial process (e.g., [0064]-[0069], Fig. 1 #12A, 12B, 18, 14A, 14B, 22, 26);

a remote collector (e.g., [0070]-[0083], Fig. 1 #30, Fig. 2 #50) that collects parameter data from process field devices (e.g., [0064]-[0069], Fig. 1 #15, 16, 20, 25);

a processor that identifies, sorts, and stores the collected parameter data (e.g., [0070]-[0083], Fig. 1 #30, Fig. 2);

a communications module for transmitting the stored parameter data to a remote monitoring station for analysis (e.g., Fig. 1 #40, [0071]).

3. The apparatus of claim 1 wherein the network connection is an optical network connection (e.g., [0070], [0109]).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan A. Jarrett whose telephone number is (571) 272-3742. The examiner can normally be reached on 10:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RAJ
6/25/05

A handwritten signature in black ink, appearing to read 'R. A. Jarrett', written in a cursive style.

Ryan A. Jarrett
Examiner
Art Unit 2125

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100